



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex Parte Thomas W. Schrimsher, Sr.

Application No. 10/772,046

SEATING FOR AUTOMOTIVE VEHICLES

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Examiner: Joseph F. Edell

AMENDED BRIEF OF APPLICANT

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REAL PARTY IN INTEREST

The real party in interest as appellant and owner of the entire right, title and interest in the present application, SEATING FOR AUTOMOTIVE VEHICLES, U.S. patent application Serial No. 10/772,046, is Shrock Manufacturing, Inc., an Indiana corporation located at 28531 Jami Street, Elkhart, Indiana 46514.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences known to the applicant or applicant's legal representative which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

Claims 1-17 are pending, at issue and subject to appeal in the present application, standing finally rejected by the Examiner.

STATUS OF AMENDMENTS

There have been no amendments filed subsequent to the final rejection.

SUMMARY OF THE CLAIMED SUBJECT MATTER

The invention of the present application subject to appeal relates to folding seating generally of the type for use in automotive vehicles, including passenger vans, recreational vehicles and the like. Such seating is moveable from an active position, permitting passenger

use of the seating, to an inactive or storage position in which the seating is folded against a wall of the vehicle, increasing the interior cargo space. (p. 2, ln. 1-8).

A seat 10 as recited in independent claim 1 is provided which includes a main supporting member 18 connected to a fixed support bracket 16 mounted to a vertical wall 14, seat frame 30 and a seat back frame 32. Both the seat frame 30 and the seat back frame 32 include frames 34 and 38, respectively, (p. 4, ln. 1-6) and are moveable relative to supporting main frame as recited in independent claims 1 and 12. (p. 4, ln. 9-18). Brackets 42 and 44 are mounted to the seat frame 38 and 34, respectively. A pivot connection 46 interconnects brackets 42 and 44 and such brackets support the operating linkage generally indicated by numeral 48 and including links 50, 52, and 54 and pivots 51, 53, and 55. (p. 4, ln. 6-13).

The actuating mechanism 48 allow the seat 10 as recited in independent claims 1 and 12 to be folded from a seating position (FIG. 2) to an flush position (FIG. 3). As such, the flush position allows the entire assembly to be moved to a storage position (FIG. 4). As this occurs, the main frame supporting member 18 pivots upward through pivot point 20 on fixed support bracket 16, causing the actuating link 24 to fold the legs 22 tucked against the main frame supporting member 18. (p. 10, ln. 1-4).

In this manner, the invention as recited in claims 1 and 12 provides seating that may be easily moved and pivoted from a deployed position engaging the floor of a vehicle (FIGS. 1-3) to a storage position against the vehicle wall (FIG. 4), where the frame, seat back, and seat bottom extend along the vehicle wall and maximize vehicle storage space. (p. 10, ln. 4-8).

Every mean plus function as permitted by 35 U.S.C. §112, sixth paragraph, is identified below with the structure, material or acts described in the specification of the application.

Claim 8 recites a linkage means 48 for pivotal movement, connecting the back frame 32 and the seat frame 30 to the main supporting member 18. (p. 4, ln. 10-20).

Claim 12, and claims 13-15 dependent thereon, recite a supporting means 16, 18, 22 for pivotal connection at the wall 14 for support of the back frame 32 and seat frame 30. (p. 3, ln. 16-20).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 12-16 are unpatentable under 35 U.S.C. § 103(a) over Stevenson, U.S. Patent No. 6,163,900 in view of Burdett, U.S. Patent No. 3,675,965.

Whether claims 1-11 and 17 are unpatentable under 35 U.S.C. § 103(a) over Stevenson in view of Burdett, and further in view of Meschkat et al., U.S. Patent No. 5,553,920.

ARGUMENT

In the foregoing actions in the pending application, the Examiner attempts to combine the teachings in the Burdett reference with those of Stevenson. This combination of references is particularly interesting, since inventor Stevenson, in column 1, lines 53-59, mentions the Burdett patent in his Background of the Invention. And, as the Examiner claims, if the substitution of the actuating linkage system in Burdett into the Stevenson invention was so obvious, one must ask why Stevenson did not do it?

The invention of Stevenson is an improvement over Burdett. The lack of Stevenson's usage of the actuating linkage system of the seat legs in Burdett can be attributed to the necessity for Stevenson to utilize both legs of the system, since Stevenson, due to its constructions, requires a pair of legs on each side of the seat. The use of the rather complicated mountable link system of Burdett is not usable in Stevenson due to the fact that seating portion 24 must pivot between the positions shown in Figures 4 and 6, which would cause the mountable linkage system of Burdett serious problems in operation.

The Stevenson and Burdett patents, as well as additional prior art, were called to the attention of the Examiner during prosecution of the parent application 10/195,088. As they are known prior art, the claims of the present application have been drafted to comply essentially to render any anticipation or obviousness rejections based on Stevenson or Burdett moot.

I. CLAIMS 12-16

The rejection of claims 12-16 under 35 U.S.C. § 103(a) as being unpatentable over Stevenson in view of Burdett should be reversed.

A. Claims 12-14.

Claim 12 requires each of the seat frame and the back frame to be moveable relative to one another between various use positions. However, in Stevenson, the seat frame and back frame are not each moveable relative to one another; only the seating portion 24 is moveable relative to the seating portion 22. Yet the Examiner claims the relative movement of both seat sections of Stevenson in his most recent action, saying the seating portion 22 is “movable around the bracket 70 and a back frame of the seating portion 24 that is movable around the bracket 70 and around arms 44, 46”. This recital, however, only shows the relative moveability of seating portion 24 around seating portion 22, and both the seating portions 22 and 24 around pivot bracket 70.

The relative moveability of seating portion 24 around seating portion 22 in Stevenson is clear; through movement of the arms 44, 46, seating portion 24 can be moved from a horizontal bed position to an upright seat position, as shown in Figs. 4-6 and again in Figs. 9 and 10. However, in noting the movement depicted in the figures, one must note that seating portion 22 does not move relative to seating portion 24. In fact, seating portion 22 is only moveable about pivot bracket 70. When such movement occurs, seating portion 24 is held in a position at the front edge 34 of seating portion 22 as the entire apparatus is folded against inner wall 16. This movement of the seating portion 24 with seating portion 22 is thus relative only to pivot bracket 70, not seating portion 22, as the Examiner claims, and Stevenson does not teach the relative moveability of both seating portions to each other.

The lack of usage of the actuating link 46 of Burdett in Stevenson’s invention is significant. The construction of the Burdett assembly was obviously considered by Stevenson since Burdett is discussed within the Stevenson patent (Col. 1, lines 52-58). It is clear that

inventor Stevenson recognized the actuating link 46 in the Burdett reference was not compatible with his invention and, thus, chose to ignore its teachings. Both references use four foot supports, two on each side. The Burdett foot linkage will not work in Stevenson due to the necessity of a hinged movement between seat sections to activate the folding of the outer legs in Burdett. This hinged seat section movement does not and cannot exist in Stevenson with its fold over back frame 24.

Claims 13 and 14 are to be grouped with claim 12.

B. Claim 15.

Further, with regard to claim 15, which is to be grouped separately, the seat frame and the back frame are described as being both moveably mounted on the moveable portion of the supporting means. Neither the seating portion 22 nor the seating portion 24 in Stevenson or frame 22, 24 in Burdett are moveably mounted on any type of moveable portion of the supporting means.

C. Claim 16.

In claim 16, which is to be grouped separately, the moveable portion 18 of the support which carries the seat frame 30 and back frame 32 is connected to the immovable portion 16 by a pivot connection 20. No such cooperating components exist in either Stevenson or Burdett. Item 70 in Stevenson is connected to no “moveable portion” of the supporting means for the seat and back frame. There is no “supporting means” as such in Stevenson. Pivots 28 and 47 in Burdett do not connect to any “moveable portion” of the back and seat frame support

Accordingly, and for the reasons mentioned above, it would not be obvious to substitute the actuating linkage system of Burdett into Stevenson and, thus, claims 12-16 are neither anticipated by nor rendered obvious over the references of record.

II. CLAIMS 1-11 and 17

The rejection of claims 1-11 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Stevenson in view of Burdett, and further in view of Meschkat et al. should be reversed.

A. Claims 1-6.

In regard to claims 1-6, which are to be grouped separately, not only is a support leg pivotally mounted on a main support member, described and included in the combination are a seat frame and a back frame, each moveably mounted on the main support member.

The arguments advanced as to the incompatibility of the Stevenson and Burdett references with respect to claims 12-16 apply equally to claims 1-11 and 17. Stevenson requires two depending legs 60; Burdett has two depending legs with a mountable linkage system for raising the legs when the Burdett bed assembly is folded upwardly. This linkage system cannot work and is not compatible in any measure with the linkage system and mode of operation of Stevenson. In Stevenson, seating portion 24 is folded rearwardly and upwardly over seating portion 22 to make the full apparatus into a seat, as shown in Fig. 6. This form of rearward and upward movement would not accommodate the linkage system in Burdett. Burdett's three-position bed is unlike Stevenson's three-position bed except for the flat sleeping mode, as shown in Fig. 3 in Burdett and Fig. 4 in Stevenson. Otherwise, the mode of operation for each assembly is entirely different.

While the Examiner claims that one of ordinary skill would be motivated to modify the manually pivoting legs 60 of Stevenson to include an adjusting linkage as taught in Burdett, this obviousness is not at all clear from the disclosures of the two inventions. The adjusting linkage, if included in Stevenson, would clearly impede the arm linkage system, as the

legs 60 in Stevenson emanate not from the edges of seating portions 22, 24, but from an inward location, as shown in Fig. 1.

Further, the Meschkat et al. reference's applicability to the present application and its inclusion in the Examiner's rejection is not fully understood. The entire manner of operation of the Stevenson reference does not lend itself to relative moveability of each of the seat portions relative to any support. When the Stevenson concept is in the bed position, as shown in Fig. 4, its sliding seating portion 22 would be a hindrance to the concept. The Examiner agreed to this point in his last Office Action, stating, "there would be little use for a sliding movement of the seat portion 22 while in the bed position".

Sliding seats and adjustable seat backs are not new in the prior art, as indicated in the photographic attachments to a previous Information Disclosure Statement filed in the parent application. Such constructions would have little applicability to the Stevenson reference due to the movement of seating portion 24 upward and over seating portion 22. The sliding movement of Meschkat et al. which the Examiner claims is obvious in the present application is not the same mode of operation of the present invention.

In the present invention, the seat bottom 30 is moveable relative to the seat back 32, as the seat bottom 30 is pulled out or the seat back 32 is pushed down. The sliding movement is accomplished through the pivotal connection 46 of the two seat portions 30, 32, one causing movement of the other. However, the sliding movement of Meschkat et al. does not allow for a pivotal connection, as seat cushion 110 moves within slide guides 10. The upward pivotal movement of the seating portion 22 and the rearward and upward movement of seating portion 24 in Stevenson would not allow for such mode of operation of sliding movement. And even if the Stevenson concept did allow for such operation, the sliding movement of a bottom

seating portion relative only to a single pivot is again not relative moveability of each seat portion to the other, as claimed in the present invention.

B. Claims 7-11.

Claims 7-11 are to be considered separately. In claim 7, both the seat and back frames 34, 38 are each pivotally mounted on the moveable main support frame 18. No such pivotal movement exists in the cited reference.

Accordingly, and for the reasons mentioned above, applying the actuating link and leg connection of Burdett to the Stevenson concept, and further modifying the seating portion of Stevenson to be slidably mounted, as taught by the Meschkat et al. reference, would not be obvious and, thus, claims 1-11 and 17 are neither anticipated by nor rendered obvious over the references of record.

III. CONCLUSION

Based on the foregoing argument, Stevenson, Burdett and Meschkat et al. neither anticipate nor render obvious the invention of claims 1-17 of the subject appeal. Accordingly, reconsideration and allowance of the foregoing claims is respectfully requested.

Respectfully submitted,
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CLAIMS APPENDIX

1. Seating for an automotive vehicle comprising a main supporting member pivotally connected to a fixed support mounted to a vertical wall, said main supporting member being movable between a substantially vertical storage position adjacent to said wall and a substantially horizontal use position, a leg pivotally mounted on said main supporting member and movable between an active position projecting from said main supporting member when the main supporting member is in the use position for supporting the main supporting member in said use position and a folded position toward said wall when the main supporting member is in the storage position, a seat frame and a back frame each movably mounted on said main supporting member and movable relative to the main supporting member toward and away from said wall between a seating position in which the back frame is inclined with respect to the seat frame with said main supporting member in said use position and into a substantially flat horizontal auxiliary position wherein said seat frame and said back frame lie in substantially the same plane permitting the main supporting member to be moved into said storage position, and an actuating link pivotally connected to said fixed support and engaging said leg to move said leg from said active position to said folded position when the main supporting member is moved from said use position to said storage position and from said folded position to said active position as said main supporting member is moved from said storage position to said use position.

2. Seating for automotive vehicles as claimed in claim 1, wherein said seat frame and said back frame are each slidably mounted on said main supporting member and in said auxiliary position are substantially flush with one another to define a horizontal substantially flat surface when the main supporting member is in the use position.

3. Seating for automotive vehicles as claimed in claim 2, wherein said horizontal substantially flat surface defined by said seat frame and said back frame extends substantially vertically when the main supporting member is moved into said storage position.

4. Seating for automotive vehicles as claimed in claim 1, wherein said actuating link is pivotally connected to said leg between the opposite ends thereof.

5. Seating for automotive vehicles as claimed in claim 1, wherein said actuating link is pivotally connected to said leg between the opposite ends thereof and is pivotally connected to said fixed support.

6. Seating for automotive vehicles as claimed in claim 1, wherein said actuating link is a rigid member pivotally connected to said fixed support and pivotally connected to said leg between the opposite ends thereof.

7. Seating for automotive vehicles as claimed in claim 1, wherein said seat frame and said back frame are each pivotally mounted on said main supporting member.

8. Seating for automotive vehicles as claimed in claim 7, wherein said main supporting member supports a linkage means connecting said back frame and said seat frame to said main supporting member for pivotal movement with respect thereto.

9. Seating for automotive vehicles as claimed in claim 7, wherein said seat frame and said back frame are each slidably mounted on said main supporting member and in said auxiliary position are substantially flush with one another to define a horizontal substantially flat surface when the main supporting member is in said use position.

10. Seating for automotive vehicles as claimed in claim 9, wherein said horizontal substantially flat surface defined by said seat frame and said back frame extends substantially vertically when the main supporting member is moved into said storage position.

11. Seating for automotive vehicles as claimed in claim 10, wherein said actuating link is a rigid member pivotally connected to said fixed support and pivotally connected to said leg between the opposite ends thereof.

12. Seating for automotive vehicles comprising a seat frame and a back frame, each of said seat frame and said back frame being movable relative to one another between a seating position in which the seat frame is substantially horizontal and the back frame is inclined with respect to the seat frame and a substantially flat horizontal auxiliary position in which the seat frame and the back frame are flush and movable from an active horizontal position to a storage position in which the seat frame and the back frame are substantially vertical along a wall, and a supporting means adapted for pivotal connection at said wall for supporting said seat frame and said back frame for movement toward and away from said wall between the seating position, the auxiliary position, and the storage position, said supporting means including a leg movable between a supporting position projecting from said frames and supporting said frames in said seating and auxiliary positions and a non-supporting folded position, and an actuating link connected to said leg and adapted for connection at said wall for moving the leg between said supporting position and said folded position tucked along said frames as said frames are moved from said active position to said storage position.

13. Seating for automotive vehicles as claimed in claim 12, wherein said actuating link is a rigid member pivotally connected to said supporting means and pivotally connected to said leg between the opposite ends thereof.

14. Seating for automotive vehicles as claimed in claim 13, wherein said supporting means includes movable and immovable portions, said immovable portion adapted for connection to said wall, said rigid member being pivotally connected to said immovable portion.

15. Seating for automotive vehicles as claimed in claim 14, wherein said seat frame and said back frame are movably mounted on said movable portion of the supporting means.

16. Seating for automotive vehicles as claimed in claim 15, wherein said movable portion is connected to said immovable portion through a pivot connection, said movable portion being movable relative to said immovable portion to move said seat frame and said back frame between said active and said storage positions.

17. Seating for automotive vehicles as claimed in claim 16, wherein said seat frame and said back frame are each slidably mounted on said movable portion and in said auxiliary position are substantially flush with one another to define a substantially flat horizontal sleeping surface when the movable portion is in the said active position.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None